

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: STRATFORD BOG POND	Lake Area (ha): 12.54
Town: STRATFORD	Maximum depth (m): 2.2
County: Coos	Mean depth (m): 0.6
River Basin: Connecticut	Volume (m ³): 76000
Latitude: 44°43'10" N	Relative depth: 0.6
Longitude: 71°30'30" W	Shore configuration: 1.27
Elevation (ft): 1591	Areal water load (m/yr): 84.37
Shore length (m): 1600.0	Flushing rate (yr ⁻¹): 139.6
Watershed area (ha): 1545.1	P retention coeff.: 0.26
% watershed ponded: 0.0	Lake type: artificial

<u>BIOLOGICAL:</u>		12 March 1991	5 September 1990
DOM. PHYTOPLANKTON (% TOTAL)	#1	NO PHYTOPLANKTON	SPARSE - NO DOMINANT;
	#2	SAMPLES COLLECTED	MOSTLY PENNATE DIATOMS
	#3		& FILAMENTOUS GREENS.
PHYTOPLANKTON ABUNDANCE (cells/mL)			1585.0
CHLOROPHYLL-A (µg/L)			1.09
DOM. ZOOPLANKTON (% TOTAL)	#1	NO ZOOPLANKTON	SPARSE - NO DOMINANT
	#2	SAMPLES COLLECTED	
	#3		
ROTIFERS/LITER			4
MICROCRUSTACEA/LITER			13
ZOOPLANKTON ABUNDANCE (#/L)			17
VASCULAR PLANT ABUNDANCE			Common
SECCHI DISK TRANSPARENCY (m)			2.2 Visible on bottom
BOTTOM DISSOLVED OXYGEN (mg/L)		13.4	8.7
BACTERIA (fecal col., #/100 ml)	#1		< 10
	#2		< 10
	#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None
Hypolimnion volume (m³) : None
Anoxic volume (m³) : None

CHEMICAL:Lake: STRATFORD BOG POND
Town: STRATFORD

	12 March 1991		5 September 1990		
DEPTH (m)	1.0		1.0		2.0
pH (units)	6.3		6.9		6.8
A.N.C. (Alkalinity)	4.3		6.2		6.5
NITRATE NITROGEN	0.42		< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	0.16		0.20		0.25
TOTAL PHOSPHORUS	<0.001		0.018		0.016
CONDUCTIVITY (μ mhos/cm)	26.9		26.8		27.6
APPARENT COLOR (cpu)	8		24		27
MAGNESIUM			0.44		
CALCIUM			2.5		
SODIUM			1.4		
POTASSIUM			0.60		
CHLORIDE	< 2		< 2		< 2
SULFATE	4		4		4
TN : TP			11		16
CALCITE SATURATION INDEX			3.2		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1990

D.O. S.D. PLANT CHL TOTAL CLASS

**	2	3	0	5	Meso.
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COMMENTS:

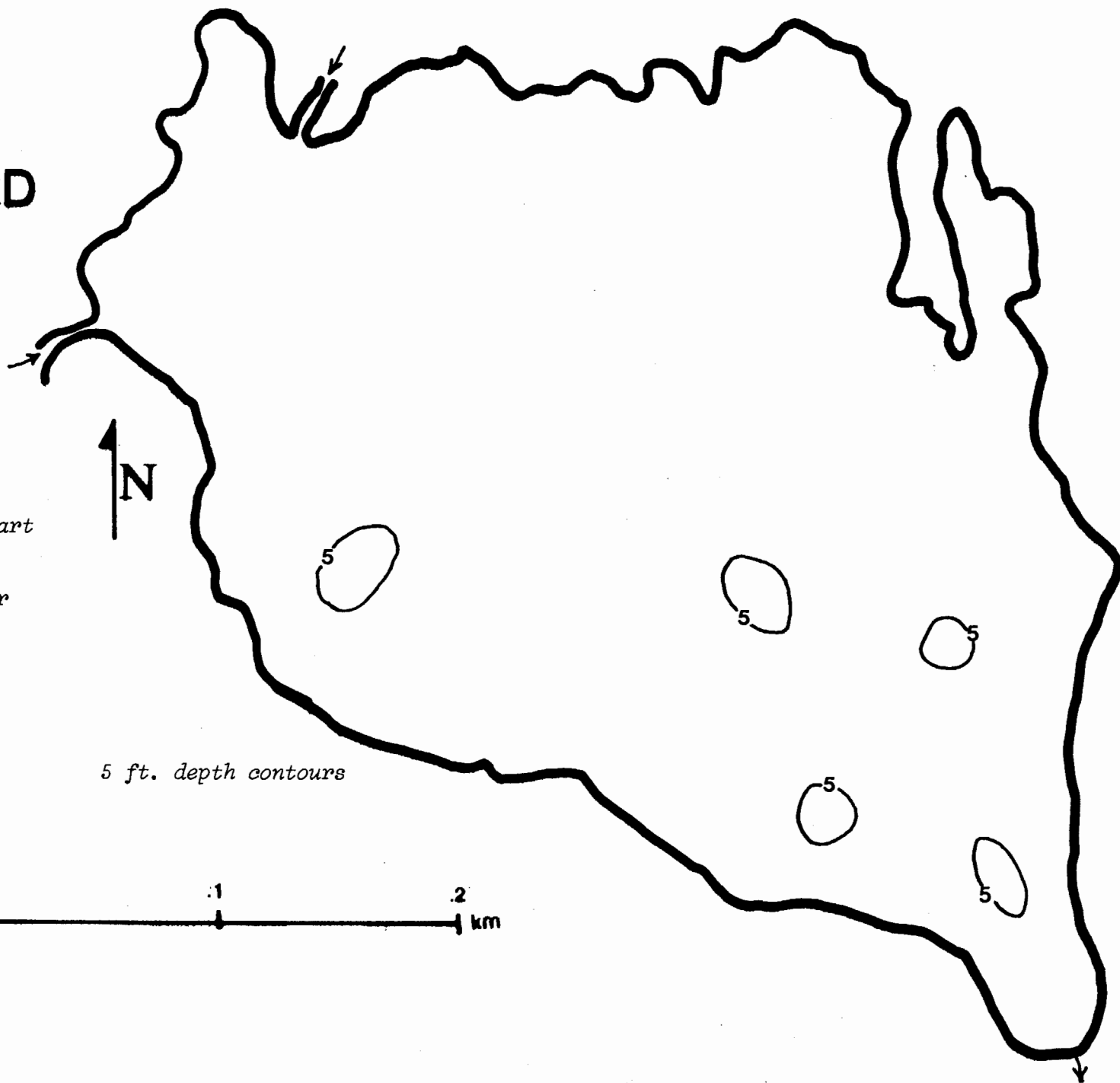
1. This is a relatively remote pond, accessed by a rough, 4-wheel drive road. However, approximately 15 cottages were located along the southeastern outlet end of the pond.
2. The northern and northwestern sides of the pond were bordered by a wooded wetland, having mostly woody shrubs (Myrica & Chamaedaphne) near the water and Tamaracks further back.
3. Stumps and logs were visible over most of the bottom.
4. No real boat ramp; our canoe was launched next to the dam.
5. No gas motors are allowed on the pond.
6. Chlamydomonas (70%) was the dominant genus of wholewater phytoplankton.

STRATFORD BOG POND

STRATFORD

Rough Bathymetric Chart
DES - 1990
Sounded by Fathometer

5 ft. depth contours

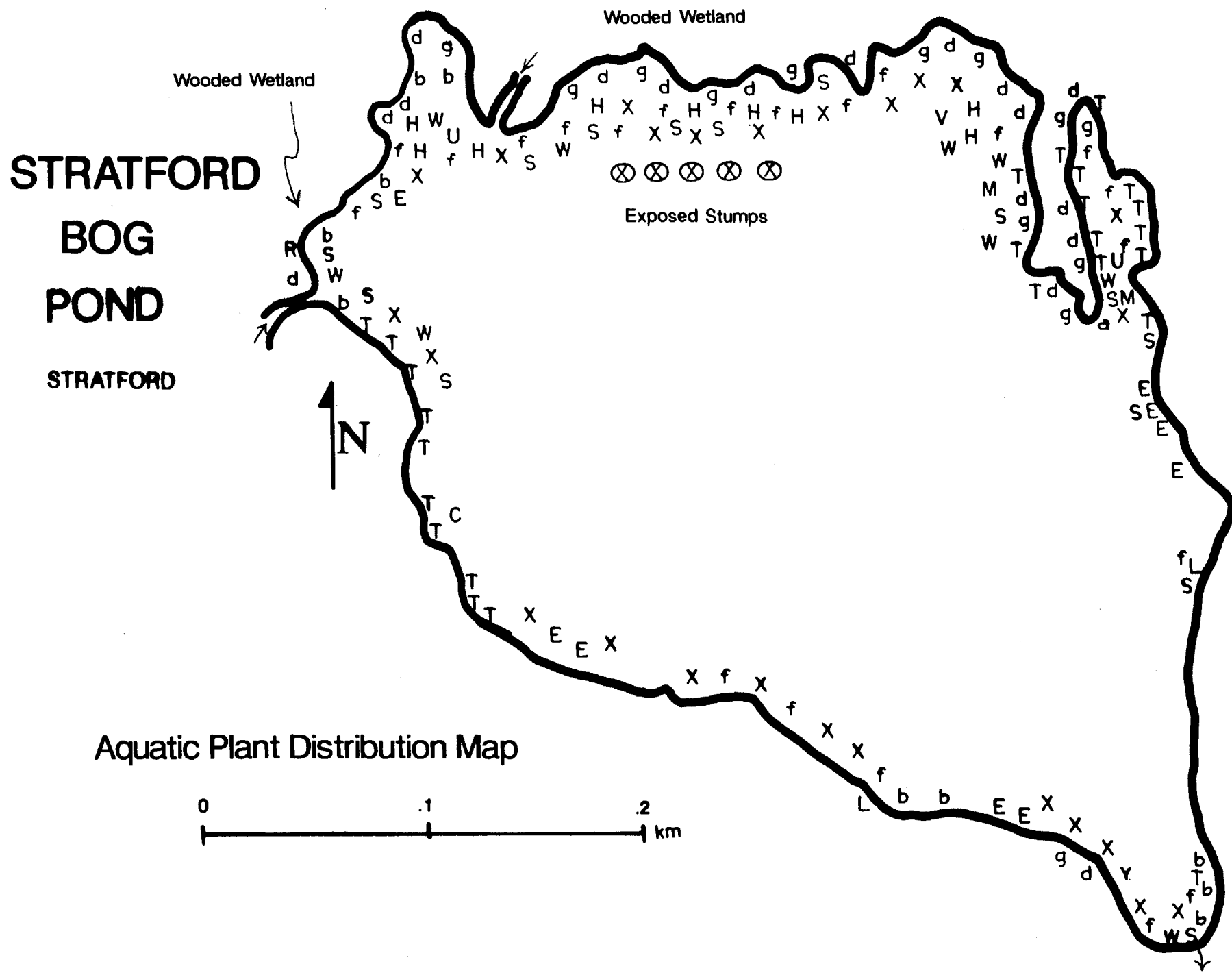


LAKE: STRATFORD BOG POND
DATE: 09/05/90

WEATHER: MOSTLY OVERCAST; CALM & MILD

SECCHI DISK (m): 2.2 VOB COMMENTS:
 BOTTOM DEPTH (m): 2.2
 TIME: 1300

111-207



AQUATIC PLANT SURVEY

LAKE: STRATFORD BOG POND

TOWN: STRATFORD

DATE: 09/05/90

Key	PLANT NAME		ABUNDANCE
	GENERIC	COMMON	
W	Potamogeton	Pondweed	Scat/Common
X		Bottom growth	Common/Abun
U	Utricularia	Bladderwort	Scattered
b	Carex	Sedge	Scattered
S	Sparganium	Bur reed	Scat/Common
T	Typha	Cattail	Common
L	Lysimachia terrestris	Swampcandle	Scattered
f	Zygnema	Filamentous green algae	Common
E	Equisetum	Horsetail	Scattered
M	Myriophyllum humile	Water milfoil	Scattered
g	Myrica gale	Sweet gale	Common
d	Chamaedaphne calyculata	Leatherleaf	Common
a	Nitella	Stonewort	Sparse
H	Hippuris vulgaris	Mare's-tail	Scat/Common
V	Vallisneria americana	Tape grass	Sparse
C	Callitriche	Water starwort	Sparse
Y	Nuphar	Yellow water lily	Sparse
R	Scirpus	Bulrush	Sparse

OVERALL ABUNDANCE: Common

GENERAL OBSERVATIONS:

1. Filamentous algae was common; one clump was examined microscopically -- it was mostly Zygnema with some Spirogyra and Mougeotia.
2. Except for shore plants such as Typha, Myrica and Chamaedaphne, emergent plants were relatively sparse. Submerged plants were common with bottom growth over much of the bottom.
3. This the only pond, to date, in which we have observed Hippuris.